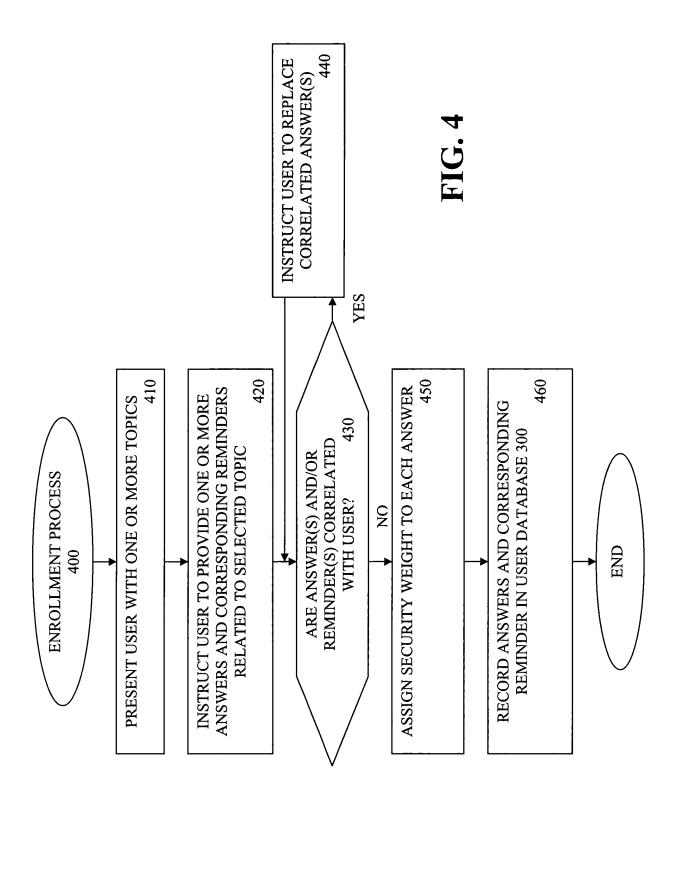


FIG.

USER DATABASE -- 300

REINFORCEMENT (HINT)	350	Mandy's Phone Number		Sandy Koufax's Perfect Game	Fido's Owner's Birthday
PASSWORD (ANSWER)	340	732-555-1212		People: Father, Mother, Sister, Brother Car: Blue 1965 Mustang Trip: From Home to Fresno via Highway	12/12/68
USER	330	John Smith	•••	Jon Bentley	Jill Doe
		305	310	315	320

## FIG



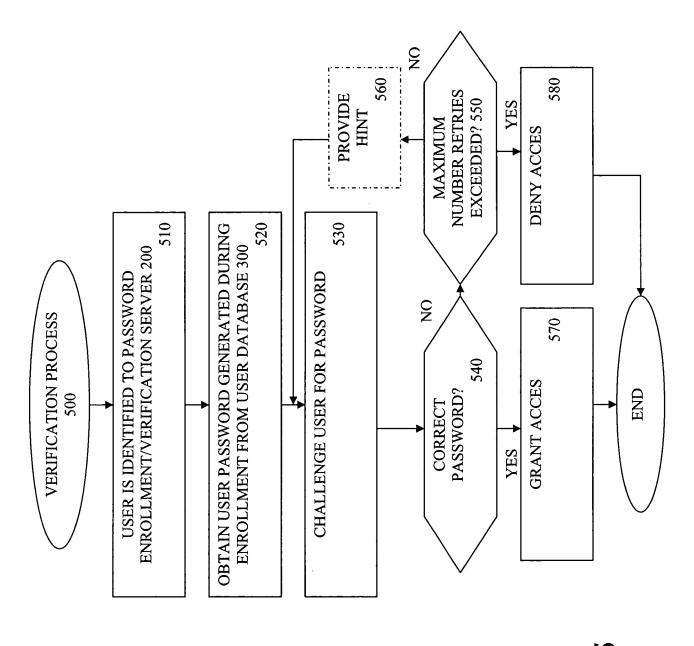


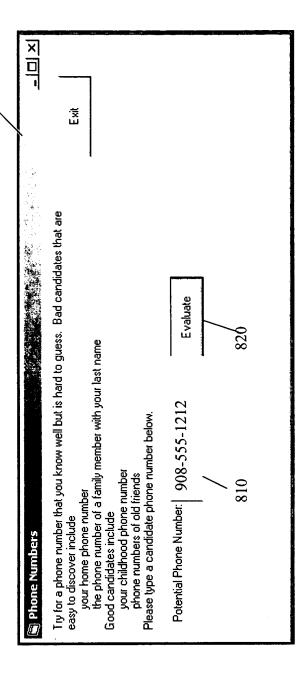
FIG. 5

 🖺 Authentication Registration UI MIC	tion UI Mine ti	×III-
 Welcome. This program will he choose one of the methods.	Welcome. This program will help you choose a "secret number" to identify yourself. Please choose one of the methods.	Exit
Personal History	Use this if you remember phone numbers, street addresses, and the like.	:
Key Events	Use this if you have vivid memory of past events, such as the First Moon Walk or the Tragedy of September 11, 2001.	
 Personal Preferences	Take a brief quiz about your likes and dislikes, then log in later by answering these questions.	
 Make Your Own Number	Make up your own secret number.	
Random Number	The system will generate a secret number, and then help you memorize it.	

**FIG.** 6

	🗟, Personal History		× III
	Try to find numbers that you kn	Try to find numbers that you know very well, yet are hard for attackers to discover.	
	Phone Numbers	Try this if you know many phone numbers.	
	Street Addresses	Try this if you know street numbers, zip codes, or PO Box numbers.	
	Dates	Try this if you know important personal dates.	
	Numbers from Facts	Try this if you know numbers such as the length, width or height of certain objects.	
	Identification Numbers	Try this if you once memorized an ID number that you no longer use. (Warning: Social Security numbers are not accepted.)	
	Other Numbers	Try this for other numbers, such as model numbers, scores of sports events, etc.	
<u>ر</u>			

## FIG. 8



🛋. Phone Number Text		X =
Try to find a reminder that is easy for you to recognize yet hard for others to guess. Bad reminders that could help an attacker include	less. Bad Exit	
Fred Jones in Boca-Raton my brother in Aspen		
Good reminders mean a lot to you, but little to other people: Fluffy and Rover's house (pets' names)		
Susie and Jimmy's old house (children's names)  If you can think of a good reminder, type it in below and press Evaluate.		
If you need help, press for assistance.		
Phone Number: 732-555-1212 Potential Reminder: Mandy's Phone Number	Evaluate	
× 010		
Tests passed.  Y 10  If you are comfortable with this reminder, proceed to the next step.	Enich the December	
If you are not comfortable, try another reminder.		

## FIG.

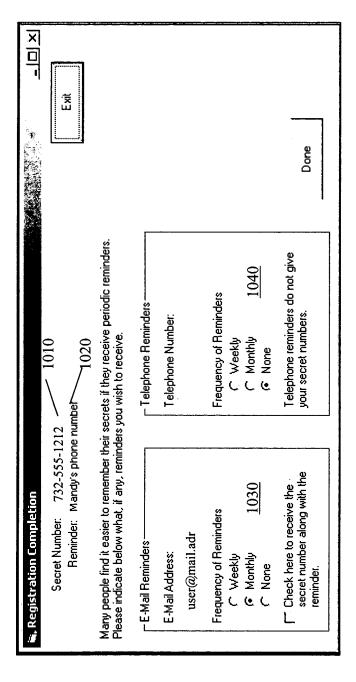


FIG. 10

× -	EX.				
1100  3 Authentication Registration UI MOCKID:  Welcome. This program will help you to select and describe a scene from your distant past	that is memorable and private yet not confidential. Please choose a category.  Use this if you have vivid memories of your surroundings during a public event, such as the First Moon Walk or the Tragedy of September 11, 2001.	Use this if you have vivid memories of a past accomplishment, such as learning to swim, learning to drive a car, your first time living away from home, or some other moment when you were "most truly yourself".	Use this if you recall a pleasant celebration, such as a birthday party, a graduation party, a religous celebration (such as a First Communion or Bar Mitzvah), or a family holiday.	Use this if you recall a scene with your childhood friends.	Use this if you have vivid memories centering around your teachers and classes when you were in school.
(E) Authentication Registration UI MOCK	that is memorable and private	Accomplishment	Celebration	Childhood Friends	School Days
			1110		

## FIG. 11

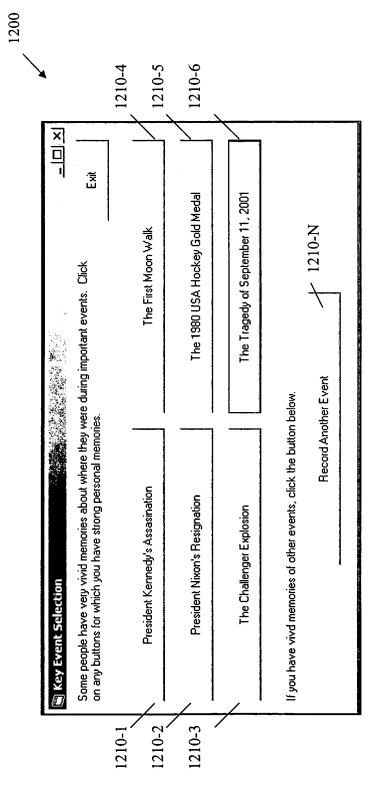


FIG. 12

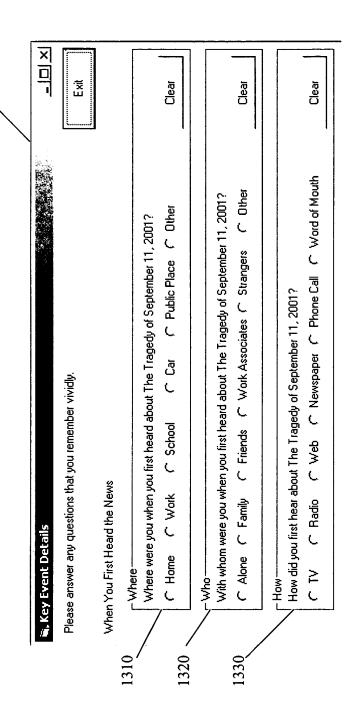


FIG. 1

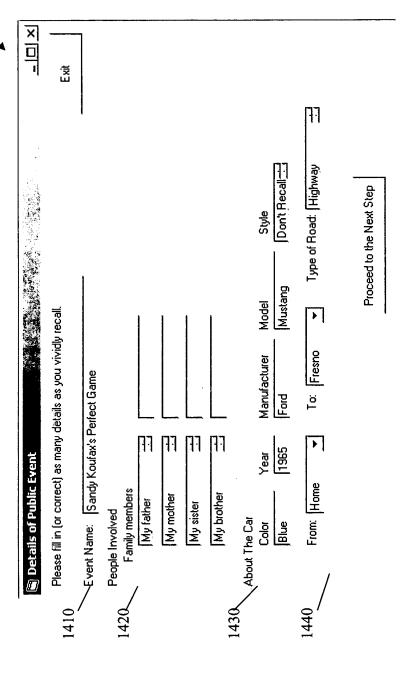


FIG. 14

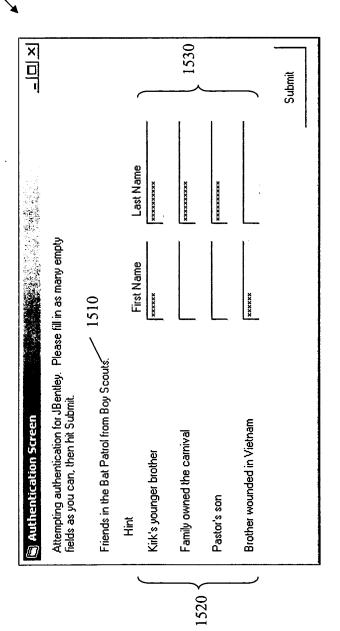


FIG. 15